

IN THE DRAWINGS

Figures 1 and 2 have been amended. Specifically, figure 1 has been designated by a legend such as --Prior Art--. A reference number "207" for "synthesizer" has been added in figure 2 in order to make the drawings to be corresponding to the specification.

REMARKS

Claims 1, 2, 4-6, and 8-16 are pending. Claims 1, 2, 4-6, 9-14, and 16 have been amended. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Entry of this Amendment is respectfully requested since no new issues are raised by entry of the Amendment and it places the application in condition for allowance or at least in better form for appeal.

In the Drawings

The drawings were objected to because Figure 2 contained poor line quality. Applicants submit herewith a replacement sheet for Figures 1 and 2 which include the changes made by the December 21, 2004 amendments and that include legible line quality for Figure 2. Accordingly, Applicants respectfully request withdrawal of this objection.

Claim Objections

The claims 1, 2, 4-6, and 8-16 were objected to as containing various informalities. Applicants have amended the claims to correct these informalities. Accordingly, Applicant respectfully submits that this objection is moot.

Claim Rejections Under 35 U.S.C. § 112

Claims 6, 8, 9, and 14-16 were rejected under 35 U.S.C. § 112, second paragraph. Applicants have amended the claims to more distinctly claim the subject matter that Applicants regard as their invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. § 103

A. Claims 1, 2, 10, and 11 were rejected under 35 U.S.C. § 103(a) over Bremer (U.S. Patent No. 4,464,767) in view of Samuelli et al. (U.S. Patent No. 6,144,712). Applicant respectfully traverses this rejection.

Amended claim 1 recites, in part, a QAM transmitting apparatus having a multiplicity of transmission bands with variable transmission rates that includes band splitting means for distributing the TX data preprocessed by the TC sub-layer means to a predetermined number of band TX processing means based on predetermined and different data transmission rates. The office Action, on page 7, alleges that it would be inherent for the bit

partitioning means disclosed in Bremer to distribute the TX data to each of the predetermined number of band TX processing means based upon a predetermined data transmission rate. Applicants respectfully disagree.

Bremer merely discloses a bit portioning circuit 28 which divides the input data into three groups through control circuitry 30 which steers the bits sequentially to the proper transmitter 22, 24, 26. In fact, Bremer merely ties a number of existing identically low rate transmitters in parallel to achieve a higher rate transmitter. See, for example, column 1, lines 25-33 and column 2, lines 10-35. Bremer is not concerned with varying rate transmissions and, as a result, fails to disclose distribution based on predetermined rates or predetermined and different rates, as recited in claim 1. Samuelli does not remedy at least this deficiency of Bremer since the variations in frequency discussed in Samuelli are removed at the front end processor 16 (See, for example, column 2, lines 45-50). Accordingly, no combination of Bremer and Samuelli teach or suggest a QAM transmitting apparatus having a multiplicity of transmission bands with variable transmission rates that includes band splitting means for distributing the TX data preprocessed by the TC sub-layer means to a predetermined number of band TX processing means based on predetermined and different data transmission rates, as recited in amended claim 1.

Claim 10 is believed allowable for at least the reasons presented above with respect to claim 1 because claim 10 recites features that are similar to the features of claim 1 discussed above.

Claims 2 and 11 are believed allowable for at least the same reasons presented above with respect to claims 1 and 10 by virtue of their dependence upon claims 1 and 10. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

B. Claims 4, 5, 12, and 13 were rejected under 35 U.S.C. § 103(a) over Bremer in view of Samuelli and further in view of Kaku et al. (U.S. Patent No. 5,987,064). Applicant respectfully traverses this rejection.

Claims 4, 5, 12, and 13 are believed allowable for at least the same reasons presented above with respect to claims 1 and 10 by virtue of their dependence upon claims 1 and 10 and because Kaku does not remedy at least the deficiencies of Bremer in view of Samuelli discussed above. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

C. Claims 6 and 14 were rejected under 35 U.S.C. § 103(a) over Bremer in view of Samuelli and further in view of Yagi (U.S. Patent No. 5,995,168). Applicant respectfully traverses this rejection.

Claims 6 and 14 are believed allowable for at least the reasons presented above with respect to claim 1 because claims 6 and 14 recite features that are similar to the features of claim 1 discussed above and because Yagi does not remedy the deficiencies of Bremer and Samuelli discussed above.

D. Claims 8, 9, 15, and 16 were rejected under 35 U.S.C. § 103(a) over Bremer in view of Samuelli and further in view of Yagi and Kaku. Applicant respectfully traverses this rejection.

Claims 8, 9, 15, and 16 are believed allowable for at least the same reasons presented above with respect to claims 6 and 14 by virtue of their dependence upon claims 6 and 14 and because Kaku does not remedy at least the deficiencies of Bremer in view of Samuelli and Yagi discussed above. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.


Conclusion

Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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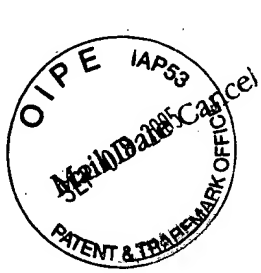
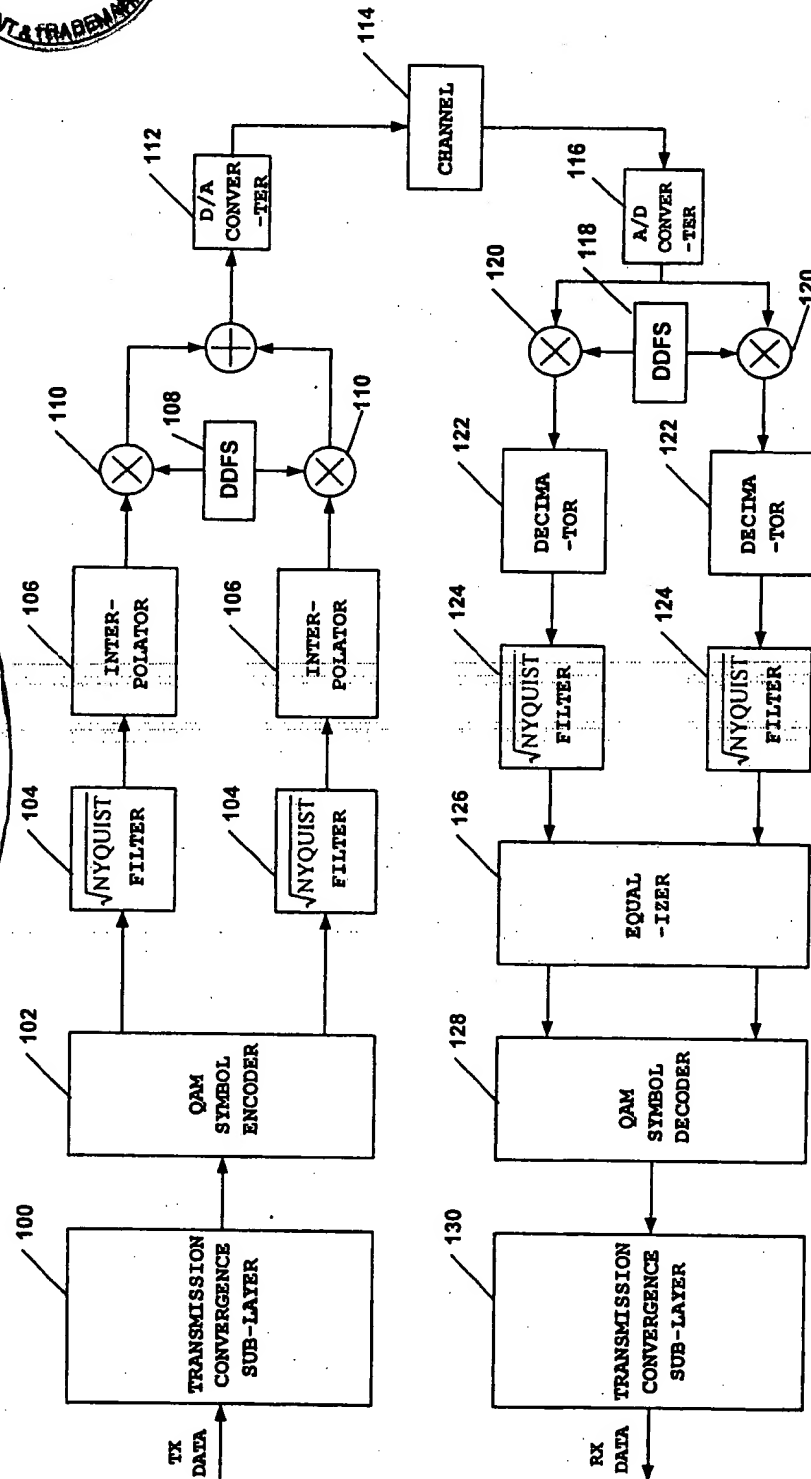


FIG. 1
(PRIOR ART)



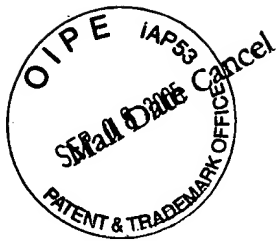


FIG. 2

